

NEW RECORDS OF OHIO DRAGONFLIES (ODONATA)

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Up to the present time, 131 species of Odonata have been recorded for Ohio. The latest annotated list (Borrer, 1937) listed 127 species; *Macromia pacifica* Hagen and *Enallagma basidens* Calvert were added by Borrer in 1938; *Argia fumipennis* (Burm.) was added in 1939 by Wright (a specimen taken in a Franklin County greenhouse in January); and a record by Langlois (1932) of *Coryphaeschna* sp. (probably *ingens* Rambur), was overlooked in the later lists.

Recently a number of records have been obtained which add another species to the state list and a number of new county records, and which extend the extreme dates of a number of species' occurrence in the state.

The new species for the state list is as follows:

132. *Dorocordulia libera* (Selys). 1♂ and 1♀, June 22, 1924, by John C. Pallister. The specimens were taken separately, flying near an open woods, at Bradley Pond in Geauga County. These specimens are No. 32590 and No. 32591 in the collection of the Cleveland Museum of Natural History. This species occurs in northeastern United States and Canada, around the boggy shores of ponds. It has been taken in northern Indiana and in Michigan, and probably occurs at other ponds in northern Ohio.

The new county records obtained from material recently examined by the writers are listed below. In this list the name of collectors (when known) are indicated by abbreviations; the location of specimens, when in another collection than that of the collector, is indicated by abbreviations in parentheses. The following abbreviations are used for collectors and collections:

CHK.....	Clarence H. Kennedy	JST.....	John S. Thomas
CMNH...	Cleveland Museum of Natural History	MT.....	Marie Todd
DJB.....	Donald J. Borrer	MW.....	Mike Wright
EE.....	Erwin J. Epstein	OG.....	Orville Gundrum
EST.....	Edward S. Thomas	OSM.....	Ohio State Natural History Museum
GL.....	G. Lucas	OSU.....	Dept. Entomology, Ohio State University
HMS.....	H. M. Spandau	RG.....	Robert Goslin
JD.....	Julian L. Dusi	WLH.....	William L. Hughes
JP.....	John C. Pallister	WRP.....	William R. Piper
JRP.....	John R. Patton		

The new county records are as follows (the species are numbered as in Borrer's 1937 annotated list):

1. *Tachopteryx thoreyi* (Hagen). Cuyahoga, EE (CMNH).
4. *Ophiogomphus rupinsulensis* (Walsh). Ashland, CHK; Delaware, CHK; Geauga, JP (CMNH); Medina, JP (CMNH).
10. *Gomphus fraternus* (Say). Ashland, CHK; Muskingum, (DJB).
13. *Gomphus lineatifrons* Calvert. Delaware, MW.

14. *Gomphus lividus* Selys. Ashland, CHK; Delaware, DJB; Ashtabula, JP (CMNH).
18. *Gomphus spicatus* Hagen. Cuyahoga, JP (CMNH).
20. *Gomphus vastus* Walsh. Ashland, CHK.
27. *Gomphaeschna antilope* (Hagen).¹ Fairfield, RG (OSM).
28. *Basiaeschna janata* (Say). Summit, JP (CMNH).
30. *Boyeria vinosa* (Say). Licking, EST (OSM).
31. *Anax junius* (Drury). Cuyahoga, EE (CMNH); Lake, EE (CMNH); Summit, JP (CMNH).
32. *Anax longipes* Hagen. Ottawa, WLH (OSU).
39. *Aeshna verticalis* Hagen. Cuyahoga, JP (CMNH).
40. *Cordulegaster diastatops* (Selys). Medina, JP (CMNH).
42. *Cordulegaster maculatus* Selys. Portage, JP (CMNH).
43. *Cordulegaster obliquus* (Say). Adams, JRP (MW).
44. *Macromia illinoensis* Walsh. Ashland (seen by CHK).
50. *Tetragoneuria cynosura* (Say). Lake, EE (CMNH); Summit, MT (CMNH).
54. *Perithemis tenera* (Say). Cuyahoga, EE (CMNH); Geauga, JP (CMNH).
55. *Celithemis elisa* (Hagen). Lake, EE (CMNH); Richland, HMS.
56. *Celithemis epolina* (Drury). Lake, EE (CMNH).
62. *Libellula cyanea* Fabricius. Highland, GL (DJB).
64. *Libellula lucuosa* Burmeister. Cuyahoga, EE (CMNH); Lake, EE (CMNH); Summit, JP (CMNH).
65. *Plathemis lydia* (Drury). Cuyahoga, EE (CMNH); Lake, EE (CMNH).
66. *Libellula pulchella* Drury. Cuyahoga, EE (CMNH); Lake, EE (CMNH); Lorain, OG (CMNH); Medina, JP (CMNH).
67. *Libellula quadrimaculata* Linnaeus. Portage, JP (CMNH).
68. *Libellula semifasciata* Burmeister. Cuyahoga, JP (CMNH).
70. *Sympetrum ambiguum* (Rambur). Greene, JST (OSM).
72. *Sympetrum obtrusum* (Hagen). Lake, EE (CMNH).
73. *Sympetrum rubicundulum* (Say). Cuyahoga, EE (CMNH); Lake, EE (CMNH); Lorain, OG (CMNH); Richland, HMS.
74. *Sympetrum semicinctum* (Say). Cuyahoga, JP (CMNH); Geauga, JP (CMNH).
76. *Sympetrum vicinum* (Hagen). Adams, MW; Cuyahoga, EE (CMNH); Lake, EE (CMNH).
77. *Leucorrhinia intacta* Hagen. Cuyahoga, EE (CMNH); Lake, EE (CMNH).
78. *Pachydiplax longipennis* (Burmeister). Cuyahoga, EE (CMNH).
79. *Erythemis simplicicollis* (Say). Cuyahoga, JP (CMNH); Lake, EE (CMNH); Summit, JP (CMNH).
80. *Pantala flavescens* (Fabricius). Cuyahoga, JP (CMNH).
87. *Agrion maculatum* Beauvais. Cuyahoga, EE (CMNH); Lorain, OG (CMNH).
88. *Hetaerina americana* (Fabricius). Cuyahoga, JP (CMNH); Morrow, JD.
91. *Lestes congener* Hagen. Cuyahoga, EE (CMNH); Lake, EE (CMNH).
92. *Lestes disjunctus* Selys. Hocking, DJB.
94. *Lestes forcipatus* Rambur. Lake, EE (CMNH).
95. *Lestes inaequalis* Walsh. Cuyahoga, EE (CMNH).
96. *Lestes reclangularis* Say. Cuyahoga, EE (CMNH); Lake, EE (CMNH).
98. *Lestes unguiculatus* Hagen. Cuyahoga, EE (CMNH); Lake, EE (CMNH).
100. *Argia apicalis* (Say). Cuyahoga, EE (CMNH).
102. *Argia moesta* (Hagen). Cuyahoga, JP (CMNH).
105. *Argia violacea* (Hagen). Cuyahoga, EE (CMNH).
106. *Amphiagrion saucium* (Burmeister). Cuyahoga, JP (CMNH); Medina, JP (CMNH).
108. *Nehalennia irene* Hagen. Cuyahoga, EE (CMNH).
109. *Chromagrion conditum* (Hagen). Cuyahoga, EE (CMNH); Summit, JP (CMNH).
110. *Enallagma antennatum* (Say). Cuyahoga, EE (CMNH); Lake, EE (CMNH).
114. *Enallagma civile* (Hagen). Cuyahoga, EE (CMNH); Lake, EE (CMNH); Richland, HMS.
117. *Enallagma ebrium* (Hagen). Lake, EE (CMNH).
118. *Enallagma exsulans* (Hagen). Shelby, WRP.
120. *Enallagma hageni* (Walsh). Medina, JP (CMNH).
121. *Enallagma signatum* (Hagen). Cuyahoga, EE (CMNH).
126. *Ischnura verticalis* (Say). Cuyahoga, EE (CMNH).
127. *Anomalagrion hastatum* (Say). Lucas, EST (OSM).

Many of the recently obtained records of Ohio Odonata have necessitated a revision of the extreme dates for a number of species' occurrence in Ohio; these revised extreme dates are as follows:

¹Gloyd (1940) has shown that the specimen recorded as *G. furcillata* (Say) by Borrer (1937) is *G. antilope* (Hagen), a species distinct from *furcillata* (Say).

3. *Hagenius brevistylus* Selys. May 30 to Aug. 4.
4. *Ophiogomphus rupinsulensis* (Walsh). May 17 to July 28.
6. *Gomphus abbreviatus* Hagen. June 10 to June 14.²
16. *Gomphus plagiatu*s Selys. May 25 to July 1.
20. *Gomphus vastus* Walsh. May 30 to July 15.³
23. *Gomphus viridifrons* Hine. June 7 to June 14.
27. *Gomphaeschna antilope* (Hagen). June 15 to June 19.
31. *Anax junius* (Drury). April 4 to October 25.
37. *Aeshna mutata* Hagen. May 24 to June 27.
39. *Aeshna verticalis* Hagen. August 26 to October 6.
40. *Cordulegaster diastatops* (Selys). May 21 to July 10.
50. *Tetragoneuria cynosura* (Say). May 8 to August 10.
54. *Perithemis tenera* (Say). June 13 to September 20.
62. *Libellula cyanea* Fabricius. June 6 to September 14.
65. *Plathemis lydia* (Drury). May 13 to September 9.
67. *Libellula quadrimaculata* Linnaeus. May 15 to June 22.
72. *Sympetrum obtrusum* (Hagen). June 23 to September 18.
73. *Sympetrum rubicundulum* (Say). May 30 to September 18.
74. *Sympetrum semicinctum* (Say). July 2 to September 21.
79. *Erythemis simplicicollis* (Say). May 19 to October 18.
94. *Lestes forcipatus* Rambur. April 27 to August 18.
95. *Lestes inaequalis* Walsh. June 13 to August 10.
96. *Lestes rectangularis* Say. May 30 to August 26.
98. *Lestes unguiculatus* Hagen. June 12 to August 28.
99. *Lestes vigalix* Hagen. June 19 to August 1.
102. *Argia moesta* (Hagen). May 26 to August 29.
103. *Argia sedula* (Hagen). June 12 to August 30.
104. *Argia tibialis* (Rambur). May 30 to August 2.
110. *Enallagma antennatum* (Say). May 21 to August 30.
120. *Enallagma hageni* (Walsh). May 24 to July 10.

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²An earlier paper (Borrer, 1937) gives an inaccurate extreme date.

³An earlier paper (Borrer, 1937) gives an inaccurate extreme date.